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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/821,368	04/09/2004	Yukio Miyaki	09792909-5862	1192

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SONNENSCHEIN NATH & ROSENTHAL LLP
P.O. BOX 061080
WACKER DRIVE STATION, WILLIS TOWER
CHICAGO, IL 60606-1080

EXAMINER	
WANG, EUGENIA	

ART UNIT	PAPER NUMBER
1795	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)	
	10/821,368	MIYAKI ET AL.	
	Examiner	Art Unit	
	EUGENIA WANG	1795	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 July 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires _____months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: *1, 3, and 4*.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

/Gregg Cantelmo/
Primary Examiner, Art Unit 1795

Continuation of 11. does NOT place the application in condition for allowance because: that such a capacity ratio results in a higher retention rate (60%) and higher capacity (2260 mAh) (as seen in table 1 and on p 27).

Examiner respectfully disagrees and submits that no true unexpected results have been shown. It is noted that high capacity (2260 mAh, as submitted by Applicant) of the claimed ratio is neither unexpected nor is it claimed. As seen in the examples/comparative examples, it is seen that the higher the Cin and Cout are the higher the capacity is. However, one of ordinary skill in the art would have found such a relationship to be expected (the higher two types of capacity are individually, the higher total capacity of the battery is). Applicant has not provided any proof or reasoning to the contrary. Additionally, it is noted that nothing in the claims precludes the application of batteries having a capacity lower than 2260 mAh, and thus, it is uncertain as to why comparative examples with less than 2260 mAh were ignored in the analysis of unexpected results. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that the batteries have a certain "high" capacity) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Accordingly, it is submitted that comparative example 1-1 (table 1, p 25) shows a cycle retention rate of 65%, which is higher than 60% (a value Applicant is submitting to be "unexpected"). Such a data point provides proof that Applicant has not clearly linked the claimed capacity ratio to providing such cycle retention rate, as examples outside of the claimed range clearly still display good cycle retention rates. Thus, it is submitted that Applicant has not met the burden of showing true unexpected results as outlined MPEP §716.02. Furthermore, Applicant has failed to show true criticality of the obtained cycle retention rate of the claimed range by dismissing comparative example 1-3, wherein comparative example 1-3 shows cycle retention rate comparable to that of examples that fit the claimed range. Furthermore, it is submitted Applicant has not clearly linked the claimed capacity ratio to the cycle retention rate, as other variable are seen to change as well. For example, the total Cin and Cout may be what affects cycle retention rate (rather than the ratio), as Cout is always held constant, while Cin changes. Thus it is unclear that a Cin/Cout ratio using different Cin and Cout values (such as 2.3 value for both Cin and Cout to yield a ratio of 1, which is outside the claimed ratio) would still provided lower than 60% cycle retention rate. Furthermore, it is noted that even the exemplified examples 1-1 to 1-4 (even in conjunction with comparative examples 1-1 and 1-2) shows a clear tend of cycle retention rate. Generally it is seen that the cycle retention rate decreases with a decreasing Cin/Cout ratio (table 1). Accordingly, it is submitted that Applicant's own data shows a pattern or trend with respect to cycle retention rate. Thus, it is uncertain how a relationship that generally shows a trend can show anything unexpected (as it would be expected that as Cin/Cout ratio decreases, the cycle retention decreases as well). (Note: The exception with respect to the trend set forth above is with comparative example 1-3, however, the difference in capacity between it and example 1-4, the closest Cin/Cout ratio, is only about 4%, a sufficiently low percentage difference, and thus not seen to be significantly different.) It is submitted that true criticality/unexpected results has not been shown, as very few data points (specifically outside of the range) are shown (wherein the data points shown outside of the range are significantly different from the claimed range), no true criticality can be linked to the claimed range. For non-limiting example, only two points above the claimed range are shown, wherein a greater than 10% difference lies between the ratio of comparative example 2 (0.89) and that of the claimed invention (0.8, and end point which is not even shown within the example). Accordingly, the data is insufficient to show true unexpected results of the claimed range. How is a ratio of 0.06 show a truly unexpected result with respect to a ratio of 0.59? How does a ratio of 0.80 show a truly unexpected result with respect to a ratio of 0.81? "To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. In re Hill, 284 F.2d 955, 128 USPQ 197 (CCPA 1960)." See MPEP §716.02(d). Accordingly, it is submitted that Applicant has not met the burden of showing true unexpected results as outlined MPEP §716.02. Accordingly, such arguments are not found to be persuasive, and the rejection of record is maintained. Lastly, it is noted that the prior art cited is closer to the claimed invention than that of the comparative examples, as it is seen to teach/obviate the claimed range via a difference in thicknesses of the active material (and thus capacity). "Evidence of unexpected properties may be in the form of a direct or indirect comparison of the claimed invention with the closest prior art which is commensurate in scope with the claims." See In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), MPEP §716.02(b)(III), and MPEP §716.02(d) - § 716.02(e). Accordingly, it is submitted that Applicant has not shown true unexpected results. Thus such arguments are not found to be persuasive, and the rejection of record is maintained.

Applicant argues that the coating thickness affects the capacity ratio but is not the same as capacity ratio.

Examiner respectfully disagrees. As set forth in the rejection, the thickness of the electrode material is indicative of the ratio of electrode material (as the thicker the material is, the more material it is, the higher the capacity), wherein given the same material and same electrode, the difference in amount lies in thickness. Thus such a relationship between thickness relates to the amount of material, wherein a proportional relationship would be expected (as more material relates to more capacity). Applicant has provided no proof or reasoning as to why this relationship (of thickness) is not indicative of the overall capacity. Furthermore, Applicant's statement actually supports the fact Fujimoto et al. does teach or at the very least suggest a capacity ratio between the outer and inner electrodes by teaching a ratio of thickness (as it does affect capacity ratio). Furthermore, Applicant's own statement as to what Fujimoto et al. teaches supports the fact the thicknesses of the electrode material from the inner and outer sides (and thus the amount on each side, thus a ratio of those amounts) is a result effective variable. Wherein the thicknesses, amounts, and thus the ratio would affect charge/discharge capacity. It would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the thicknesses of the amounts of electrode material on the outside and the inside of the current collector (i.e. the amount of active material, which affects capacity on each side, providing a ratio of amounts and capacity), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). It has been held that discovering that general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller,105 USPQ 233. Generally, differences in ranges will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such ranges is critical. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In re Aller, 220 F.2d

454, 456, 105 USPQ 233, 235 (CCPA 1955). In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969). Thus such arguments are not found to be convincing, and the rejection of record is maintained.

Applicant argues that such a claimed capacity ratio is not obvious over the thickness range, because the thickness is not a general capacity.

Examiner respectfully disagrees. As set forth within the rejection and reiterated above, the thickness relates to the capacity ratio (in a proportional manner). Applicant has not provided any proof/reasoning to the contrary. (Why would the amount of active material, thus the amount of capacity provided by that particular amount not be proportional to the amount itself (wherein thickness is the only variable that is different)? What is the capacity ratio of Fujimoto et al.'s if it is not close?) It is noted that Applicant only makes conclusory statements without any proof or reasoning. Due to the fact that Applicant has not provided any positive proof or even reasoning that contradicts the position set forth, such arguments are not found to be convincing, and the rejection of record is maintained.